

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A sealing gasket for closure, made of a polyurethane elastomer obtained by reacting the following (A) and (B):

(A) a polyisocyanate component having an isocyanate

5 group content of 5 to 38% by weight and average 2 to 3 functional groups, obtained by modifying an aliphatic isocyanate and/or an alicyclic isocyanate, and

(B) a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and average 2 to 3 functional groups.

2. (original): A sealing gasket for closure according to Claim 1, wherein the (A) is a polyisocyanate component having an isocyanate group content of 5 to 38% by weight and average 2 to 3 functional groups, obtained by modifying an aliphatic isocyanate and/or an alicyclic isocyanate according to a uretdione-forming reaction, an isocyanurate-forming reaction and/or a urethanization reaction.

3. (original): A sealing gasket for closure according to Claim 1, wherein the (A) is a polyisocyanate component having an isocyanate group content of 5 to 38% by weight and average 2 to 3 functional groups, obtained by modifying an aliphatic isocyanate and/or an alicyclic isocyanate according to an isocyanurate-forming reaction and/or a urethanization reaction.

4. (original): A sealing gasket for closure according to Claim 1, wherein the (B) is a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and average 2 to 3 functional groups, consisting of one or more high-molecular polyol(s).

5. (original): A sealing gasket for closure according to Claim 1, wherein the (B) is a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and average 2 to 3 functional groups, consisting of a mixture of a high-molecular polyol and a low-molecular polyol.

6. (original): A sealing gasket for closure according to Claim 1, wherein the polyurethane elastomer, when subjected to a retort treatment of 120°C x 30 minutes using 10 ml, per g of the polyurethane elastomer, of water, gives an extract showing a potassium permanganate consumption of 30 ppm or less.

7. (original): A sealing gasket for closure according to Claim 1, wherein the polyurethane elastomer has a JIS A hardness of 10 to 70, a tensile strength of 1 to 40 MPa and a compression set of 0.1 to 60%.

8. (original): A process for producing a closure, which comprises reacting the following (A) and (B) at the inner side of a closure to synthesize a polyurethane elastomer in such a state that the polyurethane elastomer is integrated with the closure:

(A) a polyisocyanate component having an isocyanate group content of 5 to 38% by weight and average 2 to 3 functional groups, obtained by modifying an aliphatic isocyanate and/or an alicyclic isocyanate, and

(B) a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and average 2 to 3 functional groups.

9. (original): A process for producing a closure according to Claim 8, wherein the (A) is a polyisocyanate component having an isocyanate group content of 5 to 38% by weight and average 2 to 3 functional groups, obtained by modifying an aliphatic isocyanate and/or an alicyclic isocyanate according to a uretdione-forming reaction, an isocyanurate-forming reaction and/or a urethanization reaction.

10. (original): A process for producing a closure according to Claim 8, wherein the (A) is a polyisocyanate component having an isocyanate group content of 5 to 38% by weight and average 2 to 3 functional groups, obtained by modifying an aliphatic isocyanate and/or an alicyclic isocyanate according to an isocyanurate-forming reaction and/or a urethanization reaction.

11. (original): A process for producing a closure according to Claim 8, wherein the (B) is a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and average 2 to 3 functional groups, consisting of one or more high-molecular polyol(s).

12. (original): A process for producing a closure according to Claim 8, wherein the (B) is a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and average 2 to 3 functional groups, consisting of a mixture of a high-molecular polyol and a low-molecular polyol.

13. (original): A process for producing a closure according to Claim 8, wherein the polyurethane elastomer, when subjected to a retort treatment of 120°C x 30 minutes using 10 ml, per g of the polyurethane elastomer, of water, gives an extract showing a potassium permanganate consumption of 30 ppm or less.

14. (original): A process for producing a closure according to Claim 8, wherein the polyurethane elastomer has a JIS A hardness of 10 to 70, a tensile strength of 1 to 40 MPa and a compression set of 0.1 to 60%.

15. (original): A process for producing a closure, which comprises lining the inner side of a closure with the following (A) and (B) and then reacting the (A) and the (B) at 150 to 240°C for 20 to 200 seconds to synthesize a polyurethane elastomer in such a state that the polyurethane elastomer is integrated with the closure:

(A) a polyisocyanate component having an isocyanate group content of 5 to 38% by weight and average 2 to 3 functional groups, obtained by modifying an aliphatic isocyanate and/or an alicyclic isocyanate, and

(B) a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and average 2 to 3 functional groups.

16. (original): A process for producing a closure according to Claim 15, isocyanate group content of 5 to 38% by weight and average 2 to 3 functional groups, obtained by modifying an aliphatic isocyanate and/or an alicyclic isocyanate according to a uretdione-forming reaction, an isocyanurate-forming reaction and/or a urethanization reaction.

17. (original): A process for producing a closure according to Claim 15, wherein the (A) is a polyisocyanate component having an isocyanate group content of 5 to 38% by weight and average 2 to 3 functional groups, obtained by modifying an aliphatic isocyanate and/or an alicyclic isocyanate according to an isocyanurate-forming reaction and/or a urethanization reaction.

18. (original): A process for producing a closure according to Claim 15, wherein the (B) is a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and average 2 to 3 functional groups, consisting of one or more high-molecular polyol(s).

19. (original): A process for producing a closure according to Claim 15, wherein the (B) is a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and average 2 to 3 functional groups, consisting of a mixture of a high-molecular polyol and a low-molecular polyol.

20. (original): A process for producing a closure according to Claim 15, wherein the polyurethane elastomer, when subjected to a retort treatment of 120°C x 30 minutes using 10 ml, per g of the polyurethane elastomer, of water, gives an extract showing a potassium permanganate consumption of 30 ppm or 15 less.

21. (original): A process for producing a closure according to Claim 15, wherein the polyurethane elastomer has a JIS A hardness of 10 to 70, a tensile strength of 1 to 40 MPa and a compression set of 0.1 to 60%.

22. (new): A sealing gasket for closure according to Claim 2, wherein the aliphatic isocyanate and/or alicyclic isocyanate is hexamethylene diisocyanate and/or isophorone diisocyanate.

23. (new): A sealing gasket for closure according to Claim 3, wherein the aliphatic isocyanate and/or alicyclic isocyanate is hexamethylene diisocyanate and/or isophorone diisocyanate.

24. (new) A sealing gasket for closure according to Claim 4, wherein the one or more high-molecular polyol(s) is at least one member selected from polytetramethylene ether glycols and adipate type polyester polyols.

25. (new): A sealing gasket for closure according to claim 5, wherein the high-molecular polyol is at least one member selected from polytetramethylene ether glycols and adipate type polyester polyols.

26. (new): A process for producing a closure according to Claim 9, wherein the aliphatic isocyanate and/or alicyclic isocyanate is hexamethylene diisocyanate and/or isophorone diisocyanate.

27. (new) A process for producing a closure according to Claim 10, wherein the aliphatic isocyanate and/or alicyclic isocyanate is hexamethylene diisocyanate and/or isophorone diisocyanate.

28. (new): A process for producing a closure according to Claim 11, wherein the one or more high-molecular polyol(s) is at least one member selected from polytetramethylene ether glycols and adipate type polyester polyols.

29. (new): A process for producing a closure according to Claim 12, wherein the high-molecular polyol is at least one member selected from polytetramethylene ether glycols and adipate type polyester polyols.

30. (new): A process for producing a closure according to Claim 16, wherein the aliphatic isocyanate and/or alicyclic isocyanate is hexamethylene diisocyanate and/or isophorone diisocyanate.

31. (new) A process for producing a closure according to Claim 17, wherein the aliphatic isocyanate and/or alicyclic isocyanate is hexamethylene diisocyanate and/or isophorone diisocyanate.

32. (new): A process for producing a closure according to Claim 18, wherein the one or more high-molecular polyol(s) is at least one member selected from polytetramethylene ether glycols and adipate type polyester polyols.

33. (new): A process for producing a closure according to Claim 19, wherein the high-molecular polyol is at least one member selected from polytetramethylene ether glycols and adipate type polyester polyols.

34. (new): A sealing gasket for closure, made of a polyurethane elastomer obtained by reacting the following (A) and (B) at 150 to 24000 for 20 to 200 seconds:

(A) a polyisocyanate component having an isocyanate group content of 5 to 38% by weight and average 2 to 3 functional groups, obtained by modifying an aliphatic isocyanate and/or an alicyclic, isocyanate, and

(B) a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and average 2 to 3 functional groups.

35. (new): A sealing gasket for closure according to Claim 34, wherein the (A) is a polyisocyanate component having an isocyanate group content of 5 to 38% by weight and average 2 to 3 functional groups, obtained by modifying an aliphatic isocyanate and/or an alicyclic isocyanate according to a uretdione-forming reaction, an isocyanurate-forming reaction and/or a urethanization reaction.

36. (new) A sealing gasket for closure according to Claim 35, wherein the aliphatic isocyanate and/or alicyclic isocyanate is hexamethylene diisocyanate and/or isophorone diisocyanate.

37. (new) A sealing gasket for closure according to Claim 34, wherein the (A) is a polyisocyanate component having an isocyanate group content of 5 to 38% by weight and average 2 to 3 functional groups, obtained by modifying an aliphatic isocyanate and/or an alicyclic isocyanate according to an isocyanurate-forming reaction and/or a urethanization reaction.

38. (new): A sealing gasket for closure according to Claim 37, wherein the aliphatic isocyanate and/or alicyclic isocyanate is hexamethylene diisocyanate and/or isophorone diisocyanate.

39. (new) A sealing gasket for closure according to Claim 34, wherein the (B) is a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and average 2 to 3 functional groups, consisting of one or more high-molecular polyol(s).

40. (new) A sealing gasket for closure according to Claim 39, wherein the one or more high-molecular polyol(s) is at least one member selected from polytetramethylene ether glycols and adipate type polyester polyols.

41. (new) A sealing gasket for closure according to Claim 34, wherein the (B) is a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and average 2 to 3 functional groups, consisting of a mixture of a high-molecular polyol and a low-molecular polyol.

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42. (new) A sealing gasket for closure according to Claim 41, wherein the high-molecular polyol is at least one member selected from polytetramethylene ether glycols and adipate type polyester polyols.

43. (new) A sealing gasket for closure according to Claim 34, wherein the polyurethane elastomer, when subjected to a retort treatment of 1200C x 30 minutes using 10 ml, per g of the polyurethane elastomer, of water, gives an extract showing a potassium permanganate consumption of 30 ppm or less.

44. (new) A sealing gasket for closure according to Claim 34, wherein the polyurethane elastomer has a JIS A hardness of 10 to 70, a tensile strength of 1 to 40 MPa and a compression set of 0.1 to 60%.